

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method of dispatching on a socks server an IP datagram originated from an application on a source device, in an Internet Protocol (IP) network comprising a plurality of socks servers, said IP datagram comprising a Source IP Address field in an the IP header, a Source Port field in a the Transmission Control Protocol (TCP) header, and socks data, said method comprising the steps of:

in a socks dispatcher,

identifying the source device, said step comprising the further step of retrieving a source address in the Source IP Address field;

identifying the application on the source device, said step comprising the further step of retrieving an the application address in the Source Port field;

determining an the application level protocol of socks data by referring to a first table, said first table comprising, for each socks connection identified by a source address and an application address, an application level protocol; and

selecting a socks server by referring to a second table, said second table defining for each application level protocol one or a plurality of socks servers.

2. (original) The method according to Claim 1 wherein said step of determining the application level protocol comprises the preliminary step of:

determining that the IP datagram comprises a socks CONNECT message;

updating the first table with a new socks connection identified by the source address and the application address of the IP datagram;

retrieving the application level protocol from the IP datagram;

associating said socks connection with said retrieved application level protocol in said first table.

3. (original) The method according to Claim 1 wherein said IP datagram is sent with a given priority, and wherein said step of determining the application level protocol is followed by the further step of:

determining the priority of the IP datagram by referring to a third table, said third table defining a priority for each value of the application level protocol.

4. (original) The method according to Claim 3 wherein in case of congestion in one or a plurality of output queues, said step of determining the priority of the IP datagram is followed by the further steps of:

discarding in said one or plurality of output queues IP datagrams having the lowest priority until there is no more congestion; and

discarding the IP datagram when said IP datagram compared with IP datagrams in said one or plurality of output queues, has the lowest priority.

5. (original) The method according to Claim 3 wherein in case of congestion in one or a plurality of output queues, said step of determining the priority of the IP datagram comprises the further steps of:

selecting in said one or plurality of output queues, IP datagrams that can be discarded referring to the third table, said table defining for each application level protocol an indication concerning the capacity of IP datagrams to be discarded or not in case of congestion;

discarding selected IP datagrams having the lowest priority until there is no more congestion; and

discarding the IP datagram when said IP datagram compared with IP datagrams in said one or plurality of output queues, can be discarded referring to said third table and has the lowest priority.

6. (original) The method according to Claim 1 wherein said first table is dynamic and comprises for each socks connection:

a source address identifying the source device;

an application address identifying the source application; and

application level protocol for the socks connection.

7. (currently amended) The method according to Claim 1 wherein said second table comprises for each sock server:

~~an identifier, preferably an address, an address identifier;~~
optionally, a sock server capacity; and
application level protocols supported by the socks server.

8. (currently amended) The method according to Claim 3 wherein said third table comprises for each application level protocol:

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a value corresponding to the application level protocol;
a priority; and
~~optionally,~~ an indication concerning the capacity of IP datagrams to be discarded or not in case of congestion.

9. (original) The method according to Claim 3 comprising the initial steps of:

configuring said second and third tables,
defining a default socks server for application level protocols not defined in the second table; and

defining a default priority and optionally a default indication concerning the capacity of IP datagrams to be discarded or not in case of congestion, for application level protocols not defined in the third table.

10. (original) The method according to Claim 1 wherein the step of selecting a socks server referring to a second table, comprises the further steps of:

determining the number of socks servers in the second table defined for the application level protocol of the IP datagram:

if only one socks server is defined in the second table, forwarding the IP datagram to said socks server,

if more than one socks server is defined in the second table, forwarding the IP datagram to a socks server selected according to its capacity and the priority of the IP datagram.

✓ Claims 11-12 (canceled)

13. (new) A socks dispatcher for dispatching on a socks server an IP datagram originated from an application on a source device, in an Internet protocol (IP) network comprising a plurality of socks servers, said IP datagram comprising a Source IP Address field in an IP header, a Source Port field in a Transmission Control Protocol (TCP) header, and socks data, said socks dispatcher comprising:

means for identifying the source device, said means including means for retrieving a source address in the Source IP Address field;

means for identifying the application on the source device, said means including means for retrieving the application address in the Source Port field;

means for determining an application level protocol of socks data by referring to a first table, said first table comprising, for each socks connection identified by a source address and an application address, an application level protocol; and

means for selecting a socks server by referring to a second table, said second table defining for each application level protocol one or a plurality of socks servers.

14. (new) A computer program product for dispatching on a socks server an IP datagram originated from an application on a source device, in an Internet protocol (IP) network comprising a plurality of socks servers, said IP datagram comprising a Source IP Address field in an IP header, a Source Port field in a Transmission Control Protocol (TCP) header, and socks data, said computer program product comprising:

a computer readable media;

instruction means embodied within said computer readable media for identifying the source device, said instruction means including instructions for retrieving a source address in the Source IP Address field;

instruction means embodied within said computer readable media for identifying the application on the source device, said instruction means including instructions for retrieving the application address in the Source Port field;

instruction means embodied within said computer readable media for determining an application level protocol of socks data by referring to a first table, said first table comprising,

for each socks connection identified by a source address and an application address, an application level protocol; and

AG instruction means embodied within said computer readable media for selecting a socks sever by referring to a second table, said second table defining for each application level protocol one or a plurality of socks servers.
